

CLAIMS

5 1.- Procedure for the manufacture of high concentration manganese minitabets for aluminium bath alloying which, having as its object the production of Mn minitabets or tablets with a concentration between 90 and 98% of said metal, starting from a mixture of powdered Mn Al, for the alloying of aluminium and other metal baths, is characterised in that it consists of using electrolytic Mn ground from flakes of a chemical purity of 99.7% or more, and Al powder atomised by mechanical means, with a controlled grain size distribution 10 between 100 and 800 microns, and with over 80% powder between 350 and 720 microns, while a check is made on the Mn grinding to prevent the Mn fine powder content being less than 15%.

15 2.- Procedure for the manufacture of high concentration manganese minitabets for aluminium bath alloying, according to claim 1, characterised in that the ground electrolytic Mn is subjected to a screening process with a sieve with a mesh of less than 450 microns.

20 3.- Procedure for the manufacture of high concentration manganese minitabets for aluminium bath alloying, according to previous claims, characterised in that the level of the Mn and Al, mix in the corresponding compacting means monitored by respective sensors to keep this mix level between limits that assure the execution of the actual compacting.

25 4.- Device for the manufacture of high concentration Mn minitabets for aluminium bath alloying, which, being designed for the execution of the procedure of the preceding claims starting from a mixture ground electrolytic Mn powder and atomised Al powder, said device comprising a mix storage and reception hopper, as well as compacting means in a suitable compaction 30 chamber with dies in which the minitabets are formed, including also punches both for pressing and ejecting the formed tablets, is characterised in that the storage hopper (1) is provided with a central diffuser (3) that diverts the product towards the sides of the hopper, thereby preventing said product from passing directly to the respective feeder (5) and compacting (6) chambers, including 35 between the feeder hopper (5) and the compacting hopper (6) a honeycomb

valve (10) for dispensing product to the respective dies (9) forming part of the compacting chamber (6) in which the minitablets are formed; said honeycomb valve (10) being designed to be divided sectorally so as to go on supplying the doses of product to the compacting chamber (6) individually, with the result that each of the dies (9) is filled for subsequent compacting, formation of the tablets and their ejection by means of the respective fixed punches (7), which act in combination with other moving punches (8) to carry out the compacting and pressing of the product in the dies (9).

5.- Device for the manufacture of high concentration Mn minitablets for aluminium bath alloying, according to claim 4, characterised in that it includes three electrical product level sensors in the compacting chamber (6) to monitor the maximum level A, the minimum level B and the safety level S, which determine the correct compacting of the product in the dies (9).